

Abstract

A motor control unit 107 that controls a drive device 100 of a brushless DC motor 101 of a compressor 12 in a refrigerator 1 determines that a flammable refrigerant is not leaking when it is determined that a duty variation width $A(t)$ of a duty value $D(t)$ detected at a detection time t exceeds a reference duty variation width A_a of a duty value $D(t_0)$ measured at a duty measurement reference time t_0 and a voltage value time rate-of-change ΔV of a voltage value $V(t)$ of direct-current power exceeds a reference rate-of-change ΔV_a .